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Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of

Review of the Pioneer's Preference Rules

ET Docket No. 93-266

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Comments of CELSAT, Inc.

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### Summary

It would be manifestly unfair to apply any modification or repeal of the pioneer's preference rules, other than minor administrative amendments, to the approximately 12 pioneer's preference applications currently pending before the Commission. Further, any modification or repeal of these rules should be limited to cases where the auction procedures of the 1993 Omnibus Budget and Reconciliation Act ("Budget Act") will actually be applied.

The Commission should not repeal the pioneer's preference rules. The Budget Act contemplates the inclusion of the pioneer's preference policy in the overall licensing scheme. Moreover, the public interest in the development of new and innovative services requires the retention of the pioneer's preference rules. Elimination of these rules would dramatically reduce the ability of innovators to attract necessary financing, delay the introduction of new services and have a disproportionate effect on small businesses.

Finally, the Commission should not change the standards for granting pioneer's preferences to require use of a "new" technology. Such a standard would inevitably result in a struggle to define what is a "new" technology. Instead, the Commission should continue to consider each applicant's proposal in its entirety to assess the innovation in technology and/or service that is involved.

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### Comments of CELSAT, Inc.

CELSAT, Inc. ("CELSAT"), by its attorneys, hereby respectfully submits these comments in response to the Commission's <u>Notice of Proposed Rule Making</u> in the above-captioned proceeding.<sup>1</sup>

### Background

CELSAT is a small, start up company with an innovative new technology it proposes to use to provide a unique, integrated space/ground mobile personal communications service ("CELSTAR"). CELSAT originally filed its request for a pioneer's preference for the CELSTAR system on February 10, 1992. CELSAT merits a pioneer's preference under the Commission's existing policy for the following reasons:

1. CELSAT offers a new use of spectrum while sharing spectrum with incumbents. CELSAT was

Notice of Proposed Rule Making, ET Docket No. 93-266 (rel. October 21, 1993) ("NPRM").

the first to propose to integrate satellite and terrestrial mobile/personal communications in the same spectrum band.

- 2. CELSAT was the first to demonstrate the feasibility and quantify the effects of intraservice Mobile Satellite Services ("MSS") using full band interference sharing techniques in both the RDSS bands and in the ET bands at 1970/1990 and 2160/2180 MHz. Similarly, CELSAT was the first to demonstrate that both LEO and GEO satellites can share and thereby co-exist in the same bands using the same techniques. Further, CELSAT is the only satellite proposal of any kind which has disclosed an ability to share spectrum on an inter-service basis such as with incumbent fixed microwave systems in the above ET bands.
- 3. CELSAT will reduce the cost of service to the public. Satellite transmission costs are less than one cent per minute for a phone call, approximately 1/30th the cost of the same call on Motorola's proposed "Iridium" system. CELSAT's terrestrial network also has the lowest cost. CELSAT's CELSTAR system will also have enormously greater capacity than Iridium or other proposed systems. Thus, CELSAT will be able to charge much less than current cellular prices and still be profitable.
- 4. The CELSTAR system is 477% more spectrum efficient than the best of the other MSS systems. In addition, CELSTAR has the unique ability for terrestrial expansion and spectrum sharing with incumbents, which further increases spectral efficiency.
- 5. CELSAT's system adds major new functionality, combining the best features of satellites (ubiquitous voice, paging, messaging, and position determination) and terrestrial cellular (high capacity and spectrum efficiency) and making them available via a single mobile handset. High speed fax, data and compressed video are additional capabilities using the same handset with plug-in devices.

- 6. CELSAT's system has improved operating and technical characteristics. Handsets operate at 0.1 watt average power for voice, permitting longer battery life, smaller batteries and safer operation. Subscribers will enjoy ubiquitous roaming anywhere in the United States.
- 7. CELSTAR provides increased data rates. A user can transmit or receive data at rates up to 144 kbps, far in excess of today's mobile data rates.
- 8. CELSAT is the party responsible for the innovative CELSTAR system. The U.S. patent office recognized CELSAT's innovation by granting CELSAT a patent December 17, 1991. CELSTAR was publicly announced in February 1992. As yet, no other firm has announced a similar system.
- 9. The technical feasibility of the CELSTAR system has not been challenged. The CELSTAR design, more thoroughly documented than competing mobile satellite programs, has withstood the fierce review of all the major MSS contenders, without modification and without significant attack on its feasibility.

As an applicant whose pioneer's preference request is currently pending before the Commission, CELSAT has a direct interest in any modification or elimination of the pioneer's preference rules.

I. Any Modification of the Commission's Pioneers Preference Rules Should Not Apply to Pending Applications

The Commission proposes in its NPRM to apply any repeal or modification of its pioneer's preference rules to the approximately 12 applications for pioneer's

preference currently pending before the Commission. NPRM at  $\P$  20. Any action of this type would be, as Commissioner Barrett points out, an unjust public policy "bait and switch."<sup>2</sup>

CELSAT is an entrepreneurial venture with limited resources and has expended substantial time and resources to prepare its innovation and prosecute its applications. CELSAT began its efforts to obtain a pioneer's preference shortly after the issuance of the Commission's original pioneer's preference notice in 1991. From this point on, the Commission's pioneer's preference policy has played a vital role in CELSAT's business plan. In reliance upon the Commission policy, CELSAT has expended a very large percentage of its limited resources in preparing, filing and prosecuting its pioneer's preference application. Moreover, also in

NPRM, Statement of Commissioner Andrew C. Barrett Dissenting in Part/Concurring in Part at 1. Minor administrative changes are acceptable, however, to streamline the licensing process, reduce the administrative burden on the Commission and applicants, and bring service to the public more quickly. Thus for example, CELSAT would support the Commission's proposal to eliminate the Tentative Decision phase of the pioneer's preference scheme.

Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services, 69 R.R.2d 141 (1991).

reliance on the Commission's pioneer's preference policy, CELSAT has in effect given up a good deal of lead time and disclosed its technology to an extent that it would not otherwise have done.

In this context, any modification of the Commission's rules now to eliminate or limit the benefits of a pioneer's preference for otherwise deserving applicants would be manifestly unfair. If, upon consideration, any of the 12 pending applicants merits a pioneer's preference under the existing rules, the Commission should grant such a preference with all the rights previously associated therewith.

In any case, any modification of the Commission's pioneer's preference rules due to the establishment of auction procedures for licensing should not be applied to pending applications where such applications do not actually become subject to the auction process. For example, CELSAT is currently interested in two bands of frequency -- the RDSS band and a specific portion of the ET band. In both cases, applications will not be mutually exclusive with respect to CELSAT's proposal because full band interference sharing is contemplated by CELSAT and has been supported by other applicants in these bands such as Motorola.

If applications are not mutually exclusive, the auction procedure for spectrum licensing will not apply. If the reason for modifying the pioneer's preference rules does not exist, a fortiori the reasons for applying the modified rules do not exist either. Thus the pioneer's preference scheme clearly must be retained in the context of non-mutually exclusive licensing.

II. The Budget Act Permits, and the Public Interest Requires, the Retention of the Pioneer's Preference Rules.

As the Commission recognized, the 1993 Omnibus Budget Reconciliation Act ("Budget Act") permits the Commission to award licenses to "those persons who make significant contributions to the development of a new telecommunications service or technology" outside of the auction scheme of licensing. NPRM at ¶ 9 (citing 47 U.S.C. § 309(j)(6)(G) and noting that this language specifically refers to the pioneer's preference rules). To eliminate the pioneer's preference rules entirely or to deny qualified pending applicants such as CELSAT a pioneer's preference in response to the enactment of the

Budget Act would thus be inconsistent with the provisions of the Budget Act.<sup>4</sup>

The public interest would also be better served by continuation of the Commission's pioneer's preference policy. In the NPRM, the Commission stated that "[i]n 1991, the Commission concluded that absent a pioneer's preference, there was insufficient incentive for an innovative party to propose establishment of a new service or authorization of a new technology." NPRM at ¶ 5. Nothing new has occurred to invalidate this conclusion.

Indeed, CELSAT is a case in point of how a very worthwhile development might never have seen the light of day were it not for the Commission's pioneer's preference rules. The implementation of the pioneer's preference rules to acknowledge and reward innovation directly inspired CELSAT to develop its proposal, with the expec-

In the legislative history of the Budget Act, the Committee went to great lengths (perhaps, in part, motivated by its recognition of "the creative talents of the communication bar") to establish that the adoption of the auction procedure is "expressly neutral with respect to these policies." H.R. Rep. No. 103-111, 103d Cong., 1st Sess. at 256-257 (1993) ("Conference Report"). CELSAT's CELSTAR system clearly is, as discussed above, a "significant contribution to the development of a telecommunications service or technology." Thus, the Commission may and should grant CELSAT a pioneer's preference in accordance with the terms of the Budget Act.

tation that obtaining a pioneer's preference would enable CELSAT to attract the necessary financing to turn its proposal into reality.

Although, as the Commission suggests, investors will to some extent be weighing the value of innovative proposals in their decisions to fund potential bidders in a competitive auction of spectrum, an investment analysis is not aimed at discerning the most innovative or publicly beneficial applicant. Instead, the risk analysis conducted by investors could well actually favor those seeking to implement the "tried and true" (or at least the "tried and profitable"). The truly innovative may be viewed as too risky an investment and may not be able to obtain enough financing to both construct a system and win an auction for spectrum. In other words, capital markets are not perfect and information is not completely known to all potential investors in all innovative entrepreneurs. This is particularly true where an entrepreneur is developing a new technology or service rather than merely bidding for a license in an already-established service. The pioneer's preference or even the potential of a pioneer's preference helps the applicant attract much needed financing.

Indeed, absent the edge that the potential of a pioneer's preference provides to it, a smaller entity simply may be unable to obtain adequate financing to win an auction for spectrum. This is especially true if the applicant is competing against large, established companies that can afford to buy up a large portion of the spectrum and, in so doing, suppress any new ventures or new technologies that might be perceived as a threat to their investments in older, less effective technology and existing or planned markets.

Further, new services will not be implemented as quickly in the absence of pioneer's preferences. For example, without a pioneer's preference, CELSAT's application in the RDSS band will not be considered for some time since CELSAT did not file it prior to the initial June 2, 1991 deadline for applications in this band. In the ET band, without a pioneer's preference, CELSAT would likely have to wait until incumbent fixed microwave users were cleared from the band before CELSTAR could be implemented.

Thus the Budget Act permits, and the public interest in innovative new services requires, the Commission to continue its pioneer's preference rules in order to encourage the development of these new services.

III. Small Businesses Will Be Disproportionately Injured if the Commission Eliminates Its Pioneer's Preference Policy.

The Commission's proposal to eliminate the pioneer's preference policy will, if adopted, have a disproportionate effect on small businesses, which are vital to technological innovation. The United States has had a great history of innovation, most of which originated with small business and entrepreneurs. In the case of wireless communications services, such innovation cannot be turned into reality without a license from the Commission.

The pioneer's preference policy rewards innovation rather than size or resources and gives small businesses an equal chance to compete for a license. This is consistent with the Budget Act, which requires the Commission to provide opportunities for small businesses to participate in developing and offering spectrum-based services. Requiring small entrepreneurs to bid for a license may in effect deny them the opportunity to compete at all. As the Commission points out, small entre-

<sup>47</sup> C.F.R. § 309(j)(3). Indeed, the Commission recognized that "in authorizing competitive bidding, Congress also required [the Commission] to ensure that licenses are assigned among a wide variety of applicants, including small businesses." NPRM at ¶ 8.

preneurs may find it difficult to obtain financial support for their proposals, even if innovative and beneficial. NPRM at ¶ 8.

The pioneer's preference rules were adopted to address this concern. More substantially funded entities may not need the potential for a pioneer's preference to be able to meet the Commission's financial qualifications standards in licensing. Smaller companies such as CELSAT, however, may need to show potential investors that innovation can give such companies an edge in licensing via the pioneer's preference rules in order to obtain the necessary funding.

Further, CELSAT agrees that the Commission may exempt pioneer's preference licensees from payment for their licenses consistent with the Budget Act and the present pioneer's preference scheme. NPRM at ¶ 10.

This is the proper reward for innovation and also supports the Commission's mandate to encourage small business participation. If pioneer's preference licensees

Of course licensing fees would not be an issue where the auction provisions of the Budget Act do not apply because the applications that are filed are not mutually exclusive or otherwise do not meet the prerequisites for holding an auction. See supra at 5-6. Thus this discussion is relevant only with respect to pioneer's preference applicants who have filed mutually exclusive applications.

are to pay a fee for a mutually exclusive allocation, the legislative history of the Budget Act makes it clear that any such payment should be designed to "encourage participation by small and innovation [sic] companies."

CELSAT is both small and innovative. CELSAT submits that this fee should be lower than the lowest amount paid by another successful bidder for an equal or comparable spectrum block and, in the case of a small business, amortized over the term of the license.8

IV. The Commission Should Not Change the Standard for Granting Pioneer's Preferences.

The Commission proposes to limit pioneer's preferences to only those services that use new technologies, rather than those that are based on the use of existing technologies. NPRM at ¶ 17. CELSAT agrees with the Commission that there may be instances where a supposedly new service is really nothing more than a slightly modified existing service (such as a service trans-

<sup>7</sup> Conference Report at 246.

In the absence of a prior sale of an equal or comparable spectrum block, the Commission and the applicants could utilize a non-adversarial arbitration process to determine a reasonable fee based on prior auction experience and other relevant factors, including the size and purpose of the allocation, the market potential of the service, etc.

ferred to a higher frequency). <u>Id.</u> Such services cannot be characterized as truly innovative.

The Commission should not, however, bog down the process of granting pioneer's preferences and the initiation of new services with the hair-splitting task of defining what constitutes a "new" technology. After all, new technology is always based on older technology. Einstein himself said that he only saw the theory of relativity by standing on the shoulders of scientists that went before him. It would be incredibly difficult to draw a bright line in every case as to when an existing technology is modified to the point where it becomes "new." Instead, the Commission should continue to examine each pioneer's preference application to determine whether it represents significant technological and/or service innovations.

### Conclusion

For the foregoing reasons, CELSAT respectfully urges the Commission not to eliminate the pioneer's preference rules. In any case, modification (other than minor administrative modifications) or repeal of the

pioneer's preference rules should not be applied to the approximately 12 requests for pioneer's preference that are currently pending before the Commission.

Respectfully submitted,

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